

**ABSTRACT**

Computer architecture and software for computer network communication such that data is at least partially converted between distinct transport protocols in order to optimize transmission of the data, and preferably to allow persistent connections to be maintained across different firewalls. As a 5 preferred embodiment, the transport protocol conversion may cause the data to be converted between HTTP 1.1 protocol, to allow a persistent connection originated across port 80 of a first firewall, and a different protocol, to allow a persistent connection across a second firewall. The protocol conversion of the present invention is especially useful in connection with collaborative application software, wherein the collaborative server and its associated clients are respectively more amenable to 10 different transport protocols.